



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

3809
U68-P81-05 (Amendment)
(U-068)

Moab District
Grand Resource Area
885 So. Sand Flats Road
Moab, Utah 84532

FEB 26 1992

R.S. Pattison, Manager
Rio Algom Mining Corporation
Lisbon Mine Operations
LaSal Route
Moab, Utah 84532

Re: Lisbon Mine Tailings Impoundment Reclamation, T29S, R24E (SLM), Section
21: SW1/4, San Juan County, Utah.

Dear Mr. Pattison:

We have completed NEPA documentation covering the removal of borrow material for the above-referenced reclamation. We approve your proposal, subject to the stipulations contained in the decision for EA# UT-068-89-112 (copy enclosed). Rio Algom Mining Corporation shall also assume full responsibility for flagging and traffic control in the project area.

Should you have questions, please contact Sal Venticinque of my staff at (801) 259-8193.

Sincerely yours,

Area Manager

Enclosure:
(1) Stipulations.

cc: Holland Shepherd, Utah State Division of Oil, Gas and Mining (UDOGM).
UDOGM file #-M/037/001

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

3809
U68-P81-05 (Amendment)
(U-068)

Moab District
Grand Resource Area
885 So. Sand Flats Road
Moab, Utah 84532

FEB 26 1992

R.S. Pattison, Manager
Rio Algom Mining Corporation
Lisbon Mine Operations
LaSal Route
Moab, Utah 84532

Re: Lisbon Mine Tailings Impoundment Reclamation, T29S, R24E (SLM), Section
21: SW1/4, San Juan County, Utah.

Dear Mr. Pattison:

We have completed NEPA documentation covering the removal of borrow material for the above-referenced reclamation. We approve your proposal, subject to the stipulations contained in the decision for EA# UT-068-89-112 (copy enclosed). Rio Algom Mining Corporation shall also assume full responsibility for flagging and traffic control in the project area.

Should you have questions, please contact Sal Venticinque of my staff at (801) 259-8193.

Sincerely yours,

Area Manager

Enclosure:
(1) Stipulations.

cc: Holland Shepherd, Utah State Division of Oil, Gas and Mining (UDOGM).

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

File Code 3809

STIPULATIONS

EA Log No. UT-068-89-112

Lease or
Serial No. U68-P81-05 (amendment

Project Mine Tailings Impoundment Reclamation

Applicant Rio Algom Corporation

Project T29S, R24E, Sec. 21, NE 1/4

Location Sec. 22, NW 1/4, SLB&M

Address Lisbon Mine, La Sal Route, Moab

County Grand, Utah

BLM Office Grand Resource Area

Phone No. (801) 259-8193

The following stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted by the accompanying decision. The action permitted and its anticipated impacts are fully described in the environmental assessment or categorical exclusion referenced above.

1. All 43 CFR 3809 regulations and all Utah State regulations relating to mining activity shall be observed. You have received copies of these regulations.
2. Significant cultural sites shall be avoided. Should any cultural and/or paleontological resource be discovered during project operations the following requirement shall apply:
Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder/operator, shall be immediately reported to the authorized officer. The holder/operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued. An evaluation of the discovery will be made to determine appropriate actions to prevent the loss of significant cultural or scientific values. Any decision as to proper mitigation shall be made by the authorized officer after consulting with the holder.

All field crews and other people involved with the operation will be informed by the holder/operator that they are subject to prosecution if caught vandalizing archaeological and/or paleontological sites or collecting any historic or prehistoric artifacts.

3. Displaced topsoil shall be windrowed for subsequent replacement. If left windrowed for more than one year the windrowed topsoil shall be reseeded and watered to minimize wind and water erosion. Water shall also be lightly sprayed on all disturbed areas to help minimize soil erosion.
4. Erosion control measures shall be used, such as providing drainage dips on all roads which remain open for more than one season. Roads used for only one season and then abandoned shall be ripped and reseeded, with entrances blocked to prevent vehicle traffic.
5. Existing roads and trails shall be used to the maximum extent possible.
6. Dust shall be abated by lightly spraying water on disturbed areas during operations. Through careful work scheduling vehicle emissions, dust and noise shall be minimized.
7. Speed of trucks and other vehicles shall be such as to tend to avoid collision with deer and other wildlife.

RECEIVED

(MAR 02 1992)

DIVISION OF
OIL GAS & MINING

8. All trash, garbage, waste material and scrap will be disposed of in an approved area.
9. Equipment oil will not be drained onto the ground, but will be collected and transported in closed containers to a sanitary landfill, oil recycling center, or other approved disposal point.
10. If County Road 147 is encroached upon and/or rerouted, an encroachment permit must be secured from San Juan County. Please send the Grand Resource Area office a copy of the permit.
11. All disturbed areas shall be reshaped to approximate the natural contour. Windrowed topsoil shall then be evenly spread over the reshaped areas, scarified and reseeded with the following seed mix:

<u>Grasses</u>	<u>Rate</u> <u>Lbs/Acre</u>
Beardless bluebunch	2
Crested wheatgrass (var Hycrest)	2
Indian rice grass	2
Blue grama	1
Four-wing saltbush	3
Mexican cliffrose	1
Western wheatgrass	3
Lear milkvitch	2

16

If the seed is applied by broadcasting, the above rate will be doubled. The seeds will be covered with soil by using a suitable drag. Revegetation will be done in the fall of the year.

Displaced vegetation shall then be spread over reseeded areas to help retain water, prevent soil erosion and to give the areas a more natural appearance. Please call the authorized officer at least 24 hours prior to revegetation work.

12. Water must be legally obtained in accordance with State water laws.
13. On termination of the mining operations, the authorized officer must be notified within 15 days and final reclamation procedures commenced within 30 days of such notification.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

PLAN CONFORMANCE/NEPA COMPLIANCE RECORD

BLM Office Grand Resource (U-068)

Serial No. U68-P81-05 (Amendment)

Proposed Action Title/Type: Mine Tailings Impoundment Reclamation.

Location of Proposed Action: T29S, R24E (SLM), Section 21: SW1/4, San Juan County, Utah.

Applicant: Rio Algom Mining Corporation (Rio Algom).

Description of Proposed Action: Rio Algom proposes to remove approximately 240,000 cubic yards of silt borrow material from approximately 17 acres located along the south boundary of its Lisbon Mine; the areas in question have been inspected for cultural resources, and have been found to contain no significant cultural sites (see Attachments 1-A, 1-B, 2-A, 2-B). This new material is needed because the remaining amount of silt from Borrow Area #4 is not sufficient for Rio Algom's reclamation needs. The total acreage disturbed (borrow areas and access routes) would be approximately 19 acres.

The Proposed Action is expected to begin in early March, 1992, and be completed by the end of September of the same year (R. Pattison, Manager, Lisbon Mine, February 26, 1992, telephone conversation). Approximately 100,000 cubic yards of silt would be removed from the West Borrow Area (approximately 7 acres), while the remaining volume would be removed from the East Borrow Area (approximately 10 acres). Material would be removed to an average depth of 10 feet. The patented Aubrey #7 lode mining claim would contribute approximately 90,000 cubic yards; the remaining 215,000 cubic yards would be removed from BLM-administered public land. The borrow areas have been tested for soil radium content; the results indicate that these areas are suitable for tailings radon attenuation cover (see also Attachment 3).

To facilitate access between the borrow area and the mine tailings area, three existing access roads would be upgraded, and a PMF (Probable Maximum Flood) channel would be excavated (see Attachment 4); the total acreage disturbed would be about 2 acres. Because two of these roads would cross a Road Right-of Way granted to San Juan County, Rio Algom has obtained an Encroachment Permit from the San Juan County Roads Department.

PART I: PLAN CONFORMANCE REVIEW. This Proposed Action has been determined to be in conformance with the terms and conditions of Grand Resource Area Resource Management Plan (July 1985), as required by 43 CFR 1610.5. This is shown on page 15 of the plan and reads as follows: "to keep public lands open for exploration and development of mineral resources while protecting areas with sensitive resource values."

Remarks: *None.*

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

L. H. V. Jones
Surname (s) of Reviewer (s)

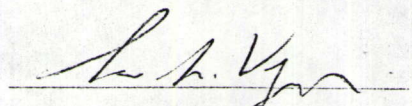
PART II NEPA REVIEW.

A. Existing EA review. This Proposed Action is addressed in the following existing BLM EA:

Name of Document: Mine Tailings Impoundment Reclamation. EA# UT-068-89-112, approved:10/12/89 (see Attachment 5).

This EA has been review against the following criteria to determine if it covers the proposed action:

1. The proposed action is a feature of, or essentially the same as, the alternative selective selected and analyzed in the existing document.
2. A reasonable range of alternatives was analyzed in the existing document.
3. There has been no significant change in circumstances or significant new information germane to the proposed action.
4. The methodology/analytical approach previously used is appropriate for the proposed action.
5. The direct and indirect impacts of the proposed action are not significantly different than those identified in the existing document.
6. The proposed action would not change the previous analysis of cumulative impacts.
7. Public involvement in the previous analysis provides appropriate coverage for the proposed action.


Surname (s) of Reviewer (s).

Remarks: This Proposed Action is located within 1 mile southwest of that previously analyzed in EA# UT-068-89-112. The analysis contained in UT-068-89-112 is believed to be adequate for this proposal; moreover, the acreage to be disturbed and the volume of material to be removed are less in the case of the present action (compare Attachment 5 with Attachments 1, 4). The most significant difference between the proposal analyzed in UT-068-89-112 and this proposal is that here the land disturbance would be readily visible from County Road #113, while that analyzed in UT-068-89-112 was not. However, because this activity would be taking place in an obvious mining area, because it is temporary in nature, and because it will be eventually reclaimed, it should not disturb the general public to an unreasonable degree.

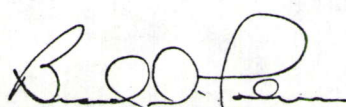
RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

PART III: DECISION. I have reviewed this plan conformance and NEPA compliance record and have determined that the proposed project is in conformance with the approved land use plan and that no further environmental analysis is required. It is my decision to implement the project, as described, with the mitigation measures identified below.

Mitigation Measures/Other Remarks: See Attachment 5, Stipulations.

Authorized Officer: 

Date: 2/26/92

Rio Algom Mining Corp.

6 February 1992

RECEIVED
GRAND RESOURCE AREA
92 FEB 11 PM 1:18
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Mr. Brad Palmer
Area Manager, Moab District
Grand Resource Area, BLM
P. O. Box M
Moab, Utah 84532

Re: Lisbon Mill Tailings Reclamation (T29S, R24E)
Your Ref: 3809 U68-P81-05 (Amendment) (U-068)

Dear Mr. Palmer:

I would like to take this opportunity to bring you up-to-date on our reclamation project and to request your approval to open up a new borrow area to the south of our tailings impoundments.

Reclamation of the upper tailings and construction of the #1 groundwater evaporation pond was completed in July 1991. Stabilization of the lower tailings impoundment was completed in November 1991.

All materials used for the project to-date were taken from [Nos. 2 & 4 borrow areas]. The amount of silt needed to stabilize the lower tailings was about twice the estimated figure. Consequently, we have exhausted borrow area #2 of silt and most of the silt in borrow area #4. We need about 240,000 bank cubic yards of silt to complete the tailings reclamation project.

We are currently placing the radon barrier over the stabilized surface of the lower tailings. When completed, we plan to build a second evaporation pond on top of the reclaimed lower tailings. In addition, we plan to reduce the lower tailings dam outslope to 5:1 from the present 2½:1. This will complete the bulk of earthmoving needed to meet NRC's reclamation requirements. Relatively minor amounts of earth will be required for the final plant cleanup, evaporation pond reclamation, and for erosion control channels.

The remaining silt thickness available in the approved borrow area #4 is three to four feet at best. To remove this material will involve clearing an unnecessarily large area and result in the needless destruction of many trees. We therefore recommend moving to a new borrow area in the SW 1/4 of Section 21, T29S, R24E. This area is located in the valley on the north side of County Road #113 and is bisected by Rio Algom's access road as shown in Figure 1 attached.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

Mr. Brad Palmer
6 February 1992
Page Two

The proposed area is located on Rio Algom's unpatented and patented lode mining claims. Approximately seven acres on the west side of the access road and ten acres on the east side will need to be disturbed and the average depth of material to be moved will be ten feet. We believe this will result in the least amount of disturbance while bearing in mind the subsequent borrow area runoff and reclamation needs.

Although the west area is already (before 1982) over 80% disturbed it has not been archaeologically cleared. I have spoken with Ms. Julie Howard about this since we need to remove about 100,000 BCY from this area. The remaining 140,000 BCY will be removed from the ten acre area on the east side of Rio Algom's access road. Approximately 90,000 BCY of the material moved from this area will be taken from Rio Algom's Audrey #4 patented mining claim.

Development of borrow material will be from the west side of the west area progressing eastward only as far as needed in the east area. Access from both areas will be along the disturbed north side of these areas. When hauling from the east area appropriate safety precautions will be taken when crossing the access road.

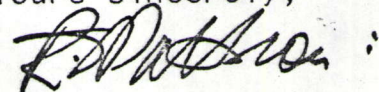
Figure 2 attached shows the locations of archeological sites in relation to the proposed borrow areas. No archeological site will be disturbed by working the proposed east borrow area and we will avoid any area identified by Ms. Howard in the west borrow area. We will prevent unnecessary and undue degradation of public lands, as required by the 43 CFR 3809 regulations and shall abide by the stipulations enclosed with your letter dated Oct. 13, 1989 plus any additional stipulations BLM has on this subject.

As requested by Messrs. Duncan and Venticinque of your staff we have surveyed the proposed borrow areas for soil radium 226 content. Six samples were taken from locations R1 through R5, as shown on Figure 1. The samples were analyzed in-house by our own technicians and the results are summarized on Mr. Fossey's memo, attached. We consider these results to be representative for the proposed borrow areas and to be typical "background" readings for this region. The low Ra-226 content indicates the material will not contribute to the radon flux from the reclaimed tailings and it is therefore suitable for tailings radon attenuation cover.

Mr. Brad Palmer
6 February 1992
Page Three

If you have any questions, please call me at your convenience.

Yours sincerely,



Robert S. Pattison
Manager

RSP:ep

cc: M. D. Freeman w/attachment
F. Fossey w/attachment

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

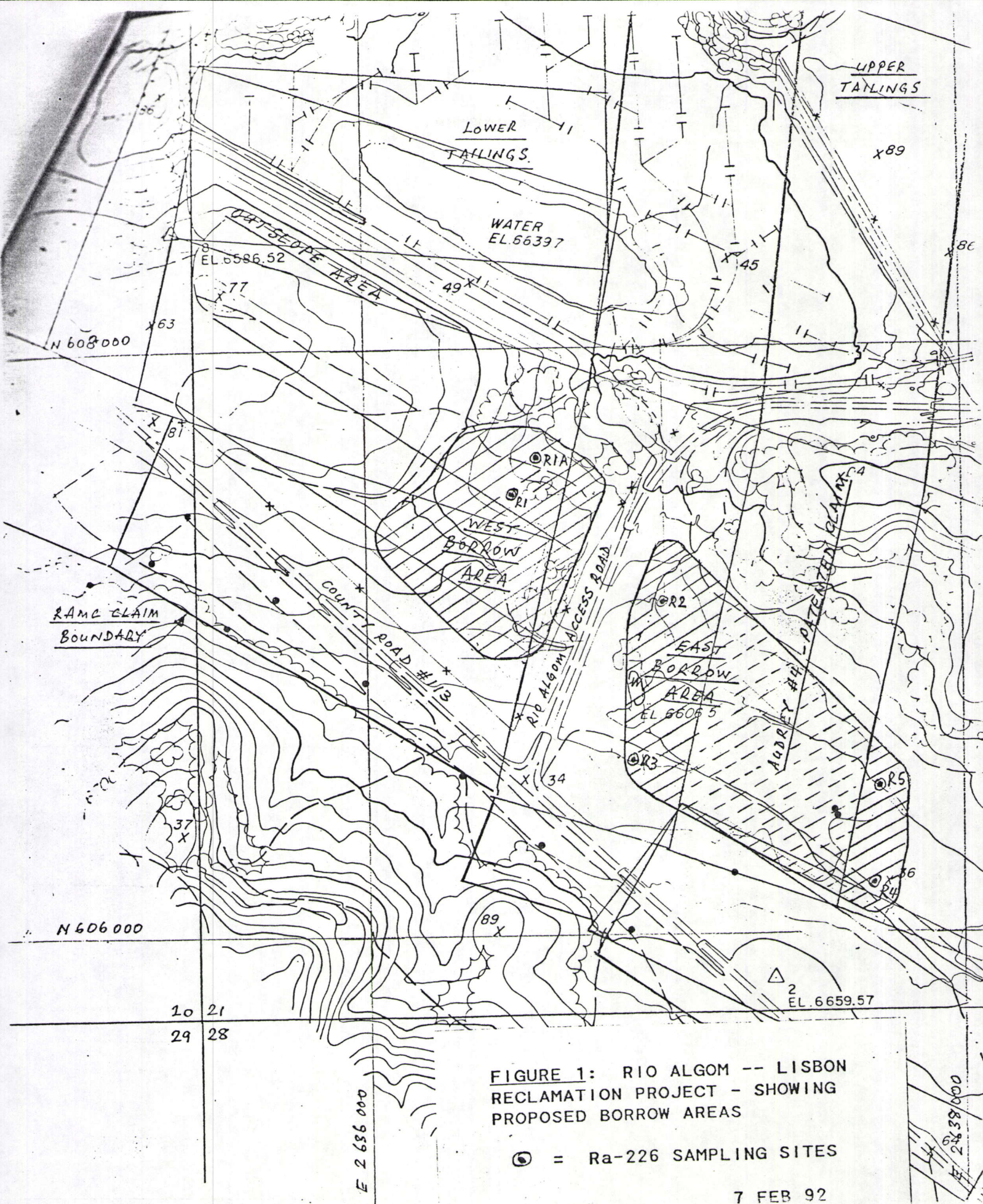
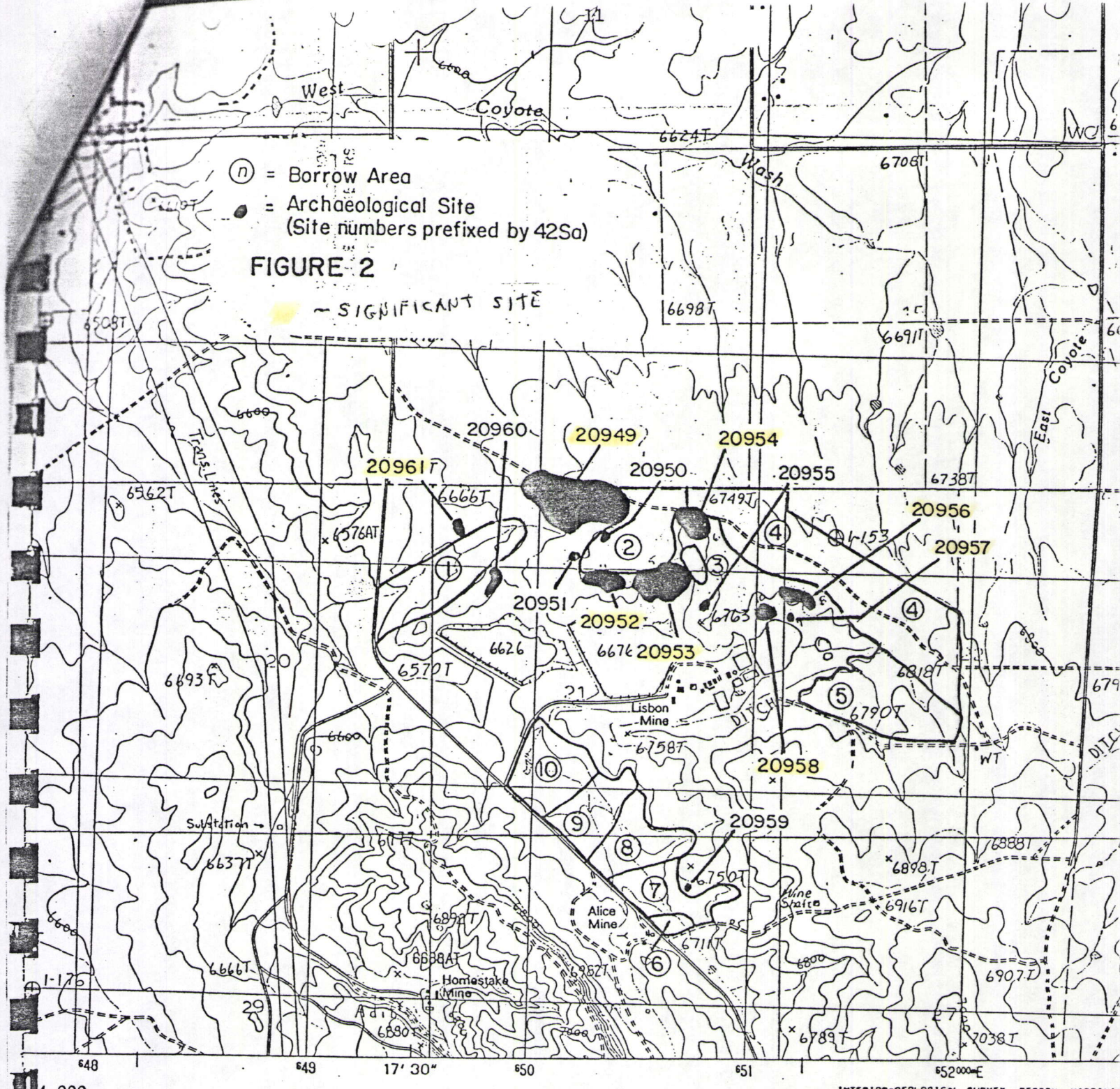


FIGURE 1: RIO ALGOM -- LISBON RECLAMATION PROJECT - SHOWING PROPOSED BORROW AREAS

⊙ = Ra-226 SAMPLING SITES

7 FEB 92



(n) = Borrow Area
 = Archaeological Site
 (Site numbers prefixed by 42Sa)

FIGURE 2

~ SIGNIFICANT SITE

1	2	3	1 Kane Springs
			2 Mount Tutubaldraz
			3 Mount Peale
4		5	4 La Sal Junction
			5 La Sal East
			6 Hatch Rock

LA SAL WEST, U

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

INTER-OFFICE MEMORANDUM

To: Bob Pattison
From: Frank Fossey *FF*
Subject: Ra²²⁶ Values

Date: February 5, 1992

Following please find the Ra²²⁶ values you requested:

<u>Sample #</u>	<u>Ra²²⁶ (pCi/g)</u>
R-1	1.3 ± 0.1
R-1A	1.1 ± 0.1
R-2	0.2 ± 0.1
R-3	1.0 ± 0.1
R-4	1.3 ± 0.1
R-5	1.6 ± 0.1

Also included are the printouts for each sample and the standard.

RECEIVED
MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

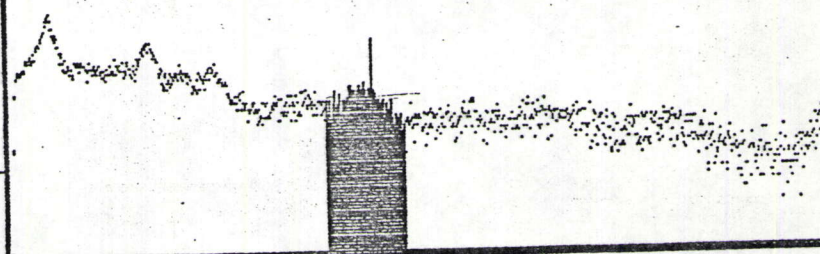
Id: R-1 soil 1363.9g

12:37:34 am Feb 05, 1992

Feb 05, 1992
12:58:00 am

Acquire: Off
Mode: PHA
Timer: Live
Scale: Log
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Ade: Add
Display: 1024
Overlap: Off

kev: 618.38
Cts: 49



Preset: 1200 Elapsed: 1200 Real: 1200
ROI Int: 3362 ± 58 ROI Net: 1075 ± 75
Centroid: 602.91 kev FWHM: 60.00 kev FWHM: 01.10 kev

0 50 100
Percent Dead Time

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

Ra²²⁶ Activity 1.3 ± 0.1 pCi/g

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

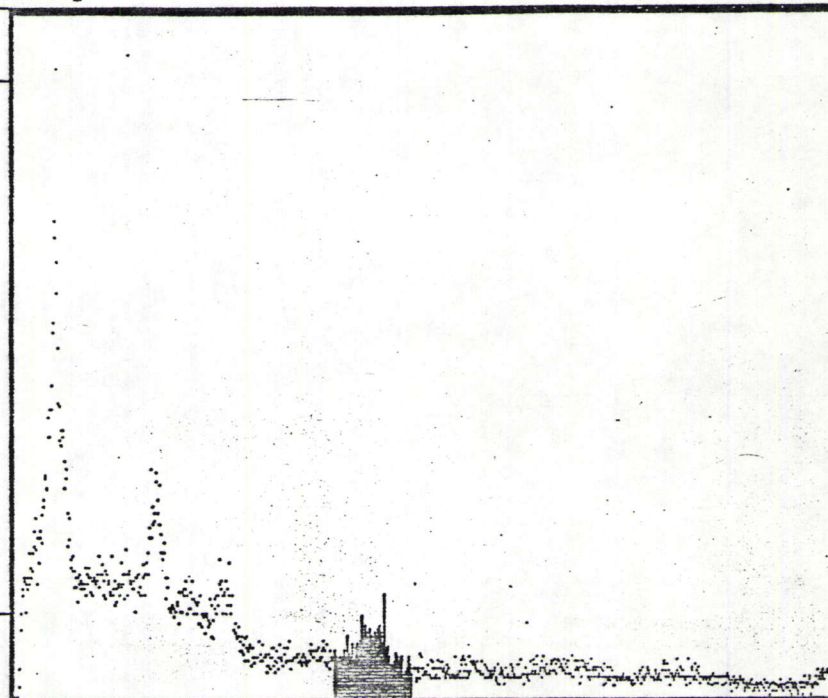
Id: R1A Soil 1297.9g

1:01:22 pm Feb 05, 1992

Feb 05, 1992
1:21:33 pm

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Adc: Add
Display: 1024
Overlap: Off

kev: 627.22
Cts: 40



Preset: 1200 Elapsed: 1200 Real: 1200
ROI Int: 3266 ± 57 ROI Net: 816 ± 76

0 50 100
Percent Dead Time

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

Ra226 Activity 1.1 ± 0.1 pCi/g

RECEIVED

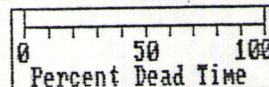
MAR 02 1992

DIVISION OF
OIL GAS & MINING

Nucleus PCA-II

Id: R-2 Soil 1289.3g

1:24:07 pm Feb 05, 1992

Feb 05, 1992
1:44:26 pmAcquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Ade: Add
Display: 1024
Overlap: Offkev: 571.11
Cts: 27Preset: 1200 Elapsed: 1200 Real: 1200
ROI Int: 2284 \pm 48 ROI Net: 161 \pm 66
Centroid: 595.15 kev FWHM: 6.57 kev FWTM: 24.22 kev

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

Ra²²⁶ Activity 0.2 \pm 0.2 pCi/g

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

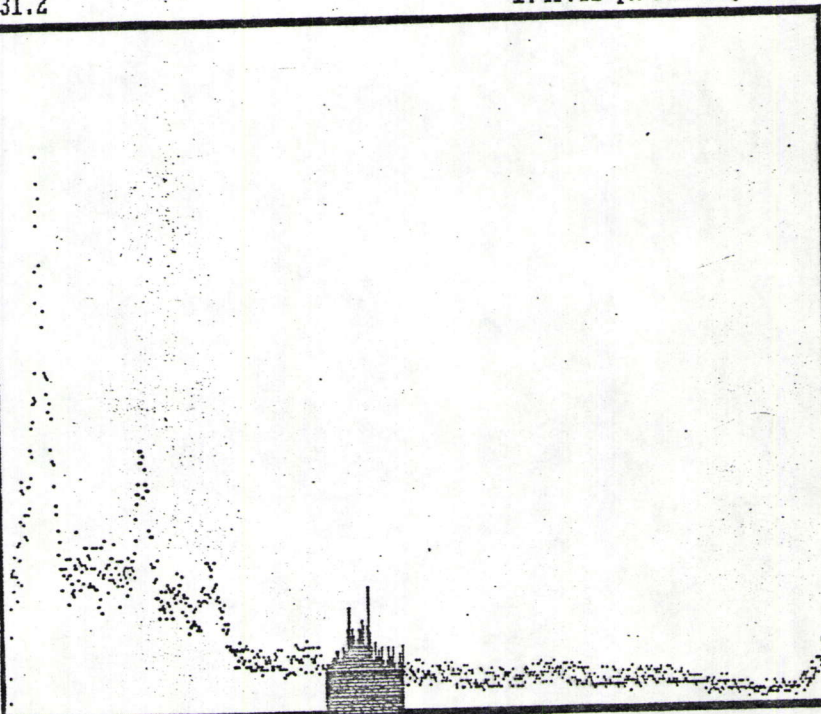
Id: R-3 soil 1331.2

1:48:02 pm Feb 05, 1992

Feb 05, 1992
2:03:09 pm

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 8
Ade: Add
Display: 1024
Overlap: Off

kev: 615.43
Cts: 55



Preset: 1200 Elapsed: 1200 Real: 1200

ROI Int: 3967 ± 63 ROI Net: 798 ± 84

Centroid: 605.97 kev FWHM: 6.85 kev FWTM: 73.20 kev Asym

0 50 100
Percent Dead Time

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-R01

Ra²²⁶ Activity 1.0 ± 0.1

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

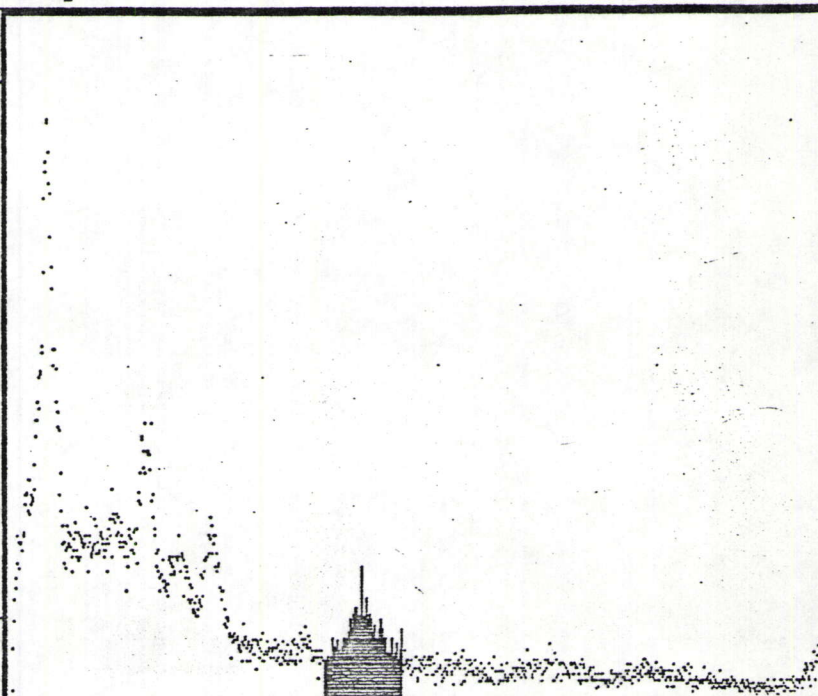
Id: R-4 Soil 1285.0g

2:11:41 pm Feb 05, 1992

Feb 05, 1992
2:31:48 pm

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Adc: Add
Display: 1024
Overlap: Off

kev: 605.10
Cts: 64



Preset: 1200 Elapsed: 1200 Real: 1200
ROI Int: 4486 \pm 67 ROI Net: 958 \pm 90
Centroid: 602.02 kev FWHM: 44.15 kev FWHM: 65.47 kev Asym

0 50 100
Percent Dead Time

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

Ra²²⁶ Activity 1.3 \pm 0.1 pCi/g

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

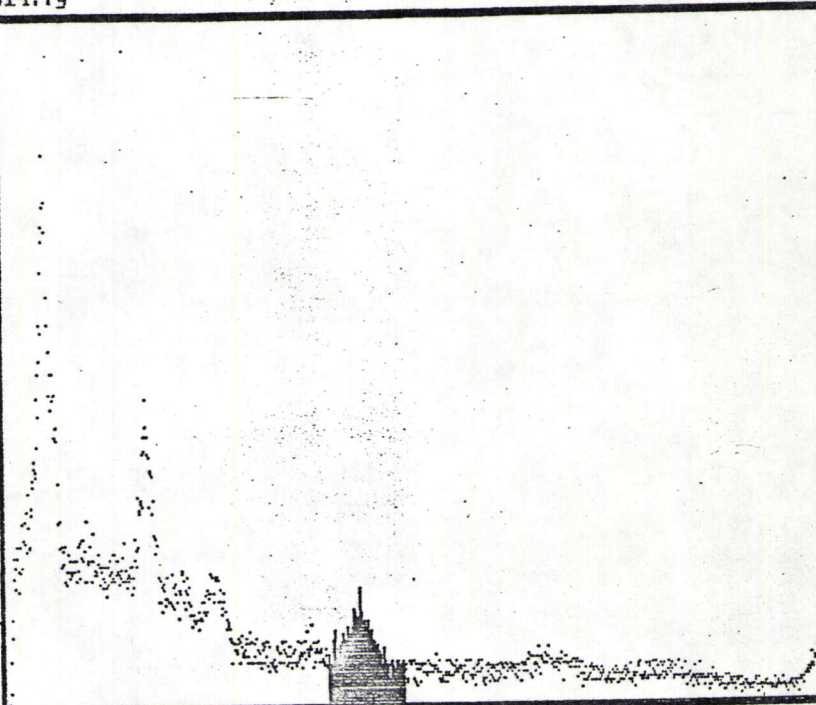
Id: R-5 Soil 1314.7g

2:34:19 pm Feb 05, 1992

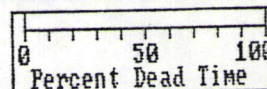
Feb 05, 1992
2:56:02 pm

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Ade: Add
Display: 1024
Overlap: Off

kev: 596.24
Cts: 51



Preset: 1200 Elapsed: 1200 Real: 1200
ROI Int: 3925 ± 63 ROI Net: 1263 ± 81
Centroid: 593.46 kev FWHM: 36.79 kev FWHM: 78.81 kev Asym



F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

Ra²²⁶ Activity 1.6 ± 0.1 pCi/g

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

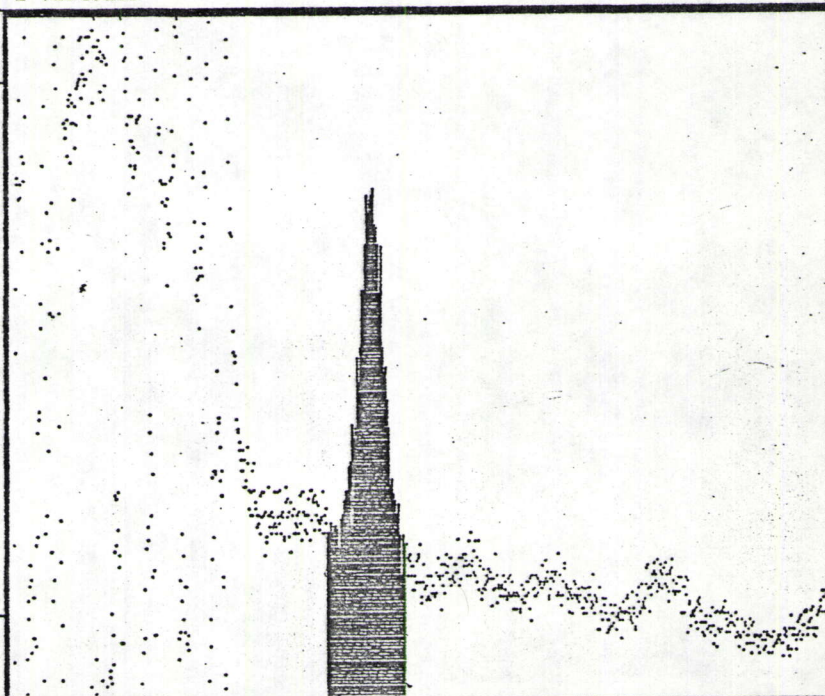
Id: std 352-39-2 .0047uCi

09:23:23 am Feb 05, 1992

Feb 05, 1992
11:34:10 am

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Ade: Add
Display: 1024
Overlap: Off

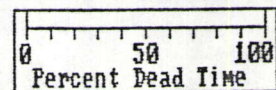
kev: 606.58
Cts: 342



Preset: 3600 Elapsed: 3600 Real: 3600

ROI Int: 28177 ± 142 ROI Net: 8352 ± 179

Centroid: 616.98 kev FWHM: 52.91 kev FWHM: 82.36 kev Asym



F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

Eff = 0.0284

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

SUMMARY REPORT OF CULTURAL RESOURCES INSPECTION

Dept. of the Interior
Bureau of Land Management
Moab District Office
Grand Resource Area

SURVEY PROJECT/REPORT NO.: U-92-BL-042-b

1. REPORT TITLE: RIO ALGOM MINE RECLAMATION PROJECT
2. DEVELOPMENT COMPANY: RIO ALGOM MINING CORPORATION
3. REPORT DATE: FEB. 21, 1992
4. DATE(S) OF SURVEY: FEB. 20, 1992
5. RESOURCE AREA: Grand Resource Area, Moab District
6. COUNTY: San Juan County, Utah
7. FIELDWORK LOCATION: The Rio Algom Mine project area is situated in the upper Lisbon Valley which lies on the southern flank of the La Sal Mountains.
8. DESCRIPTION OF EXAMINATION PROCEDURES: The proposed project area was walked by Julie Howard in 15 meter transects.
9. INVENTORY TYPE: Intensive
10. LINEAR MILES SURVEYED:
DEFINABLE ACRES SURVEYED:
LEGALLY UNDEFINABLE ACRES SURVEYED: 25
11. NUMBER OF SITES FOUND: None
12. COLLECTION: No
13. DESCRIPTION OF FINDINGS: The cultural resource inventory resulted in the location of one isolated find consisting of two chalcedony tertiary flakes.
14. ACTUAL/POTENTIAL NATIONAL REGISTER PROPERTIES AFFECTED: No actual or potential National Register Properties will be affected by the proposed reclamation project.
15. LITERATURE SEARCH, WHERE / DATE: Grand Resource Area, Feb. 19, 1992.
16. CONCLUSION / RECOMMENDATION: No significant historic properties were found. A determination of "No Effect" is recommended pursuant to Section 106. 36 CFR 800.
17. PRINCIPAL INVESTIGATOR: Julie Howard
18. SIGNATURE OF PRINCIPAL INVESTIGATOR:

BLM, USO Form 8100-3
Division of State History Form

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

2

RECEIVED

MAR 02 1992

OIL

IG

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING



U68-P81-05 (Amendment) Rio Algom Mining Corporation. T29S, R24E, Section 21: SW1/4. View to S-SW, photo taken February 20, 1992.

Photo 1: View, from access road to mine office, of west borrow area.



U68-P81-05 (Amendment) Rio Algom Mining Corporation. T29S, R24E, Section 21: SW1/4. Photo taken February 20, 1992.

Photo 2: Clockwise continuation, from Photo 1, of west borrow area.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING



U68-P81-05 (Amendment) Rio Algom Mining Corporation. T29S, R24E, Section 21:SW1/4. View to S-SE, photo taken February 20, 1992.

Photo 3: View, from access road to mine office, of east borrow area.



U68-P81-05 (Amendment) Rio Algom Mining Corporation. T29S, R24E, Section 21:SW1/4. Photo taken February 20, 1992.

Photo 4: Clockwise continuation, from Photo 3, of east borrow area.



U68-P81-05 (Amendment) Rio Algom Mining Corporation. T29S, R24E, Section 21:SW1/4. Photo taken February 20, 1992.

Photo 5: Clockwise continuation, from Photo 4, of east borrow area.

RECEIVED

MAR 02 1992

DIVISION OF
GEOLOGY & MINING

Algom Mining Corp.

14 February 1992

Mr. Brad Palmer
Area Manager, Moab District
Grand Resource Area, BLM
P. O. Box M
Moab, Utah 84532

Re: Lisbon Mill Tailings Reclamation (T29S, R24E)
Your Ref: 3809 U68-P81-05 (Amendment) (U-068)

Dear Mr. Palmer:

This letter is in regard to my 6th February submittal and in response to Mr. Sal Venticinqu's request for additional information yesterday.

Two additional samples of soil were taken from the west and east borrow areas. Results from these samples are attached and summarized as follows:

<u>Sample #</u>	<u>Ra-226 (pCi/g)</u>
R-6	1.0 ± 0.1
R-7	0.7 ± 0.1
R-8	1.0 ± 0.1
R-9	1.7 ± 0.1

Again, these results are typical background readings for this region and the material should present no problem when it is used for radon attenuation cover. The borrow area sampling locations are shown on the attached map.

Also shown on the attached map, the west side of the east borrow area has been moved about 60 feet eastward to avoid overlapping the F-804, Inc. F2 and F4 mining claims. We shall do our best to avoid taking material from this claim area.

As soon as the snow clears sufficiently from the west borrow area we will notify Ms. Julie Howard for archaeological clearance.

If you have any questions, or need additional information, please call me at your convenience.

Yours sincerely,

R. S. Pattison

R. S. Pattison
Manager

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

RSP:ep

cc: F. G. Fossey

M. D. Freeman

Lisbon Mine Operations, Lasal Route, Moab, Utah 84532 • (801) 686-2216 • FAX (801) 686-2337

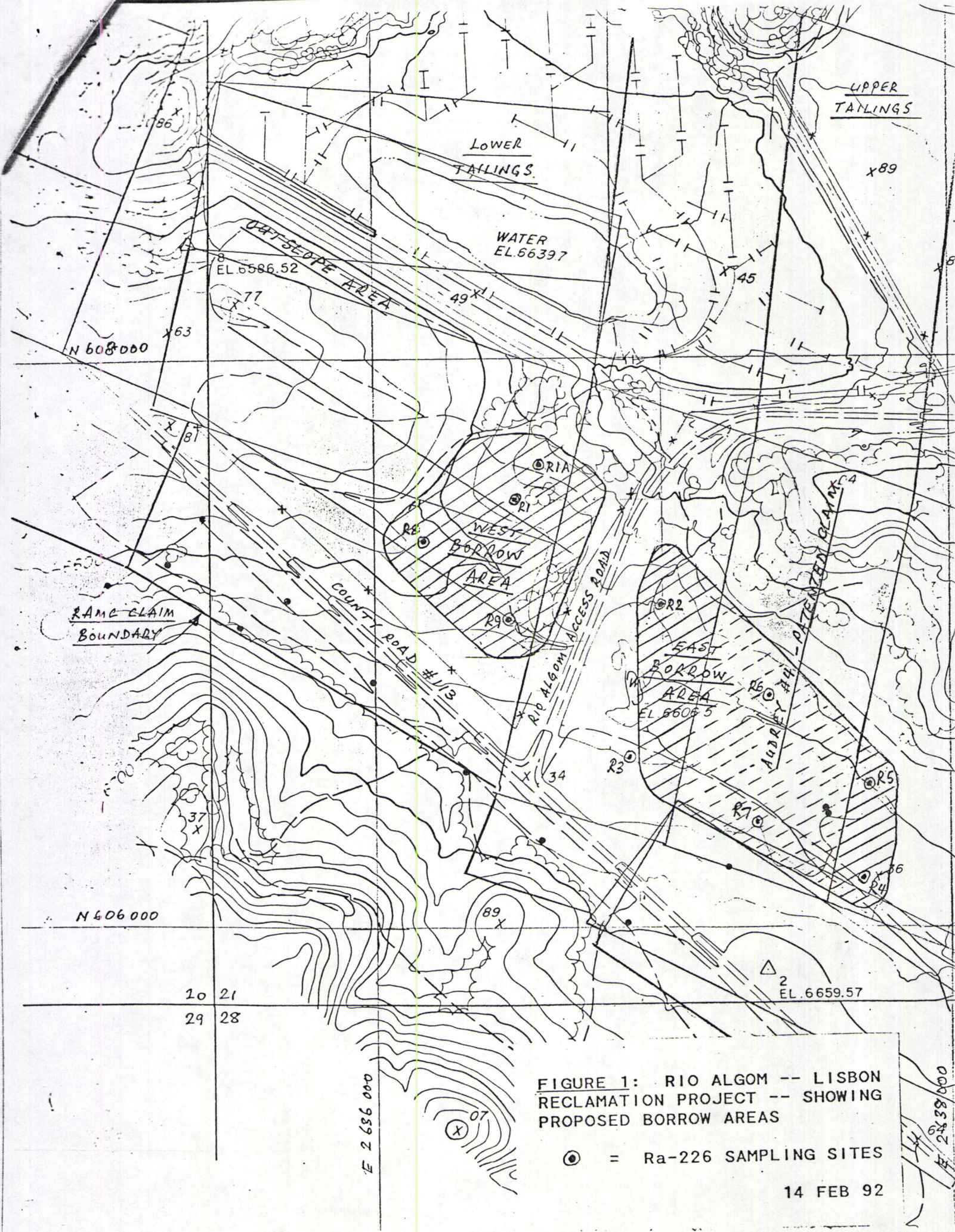


FIGURE 1: RIO ALGOM -- LISBON RECLAMATION PROJECT -- SHOWING PROPOSED BORROW AREAS

⊙ = Ra-226 SAMPLING SITES

14 FEB 92

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

Id: r-7 Soil 1282.5g L#010

1:12:58 pm Feb 14, 1992

Feb 14, 1992
1:33:14 pm

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Ade: Add
Display: 1024
Overlap: Off

kev: 632.64
Cts: 39

Preset: 1200 Elapsed: 1200 Real: 1200
ROI Int: 3734 \pm 61 ROI Net: 567 \pm 83

0 50 100
Percent Dead Time

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

Id: R-8 Soil L#011 1366.3 g

1:36:29 pm Feb 14, 1992

Feb 14, 1992

1:58:57 pm

Acquire: Off

Mode: PHA

Timer: Live

Scale: 512

Group: Q1

Roi No: 1

Roi: On

Gain: 4096

Offset: 0

Adc: Add

Display: 1024

Overlap: Off

kev: 593.47

Cts: 52

Preset: 1200

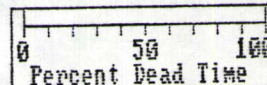
Elapsed: 1200

Real:

1200

ROI Int: 3396 \pm 50

ROI Net: 863 \pm 77



F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

(Alt) Help File Calc Setup Options Mode Quit

337K

Nucleus PCA-II

Id: R-9 soil L# 012 1294.5 g

2:01:06 pm Feb 14, 1992

Feb 14, 1992
2:21:11 pm

Acquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 8
Ade: Add
Display: 1024
Overlap: Off

kev: 593.47
Cts: 42

Preset: 1200 Elapsed: 1200 Real: 1200

ROI Int: 3210 \pm 57 ROI Net: 1360 \pm 71

Centroid: 609.00 kev Fullw: 22.13 kev FwTm: 91.86 kev Asym

0 50 100
Percent Dead Time

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

RECEIVED

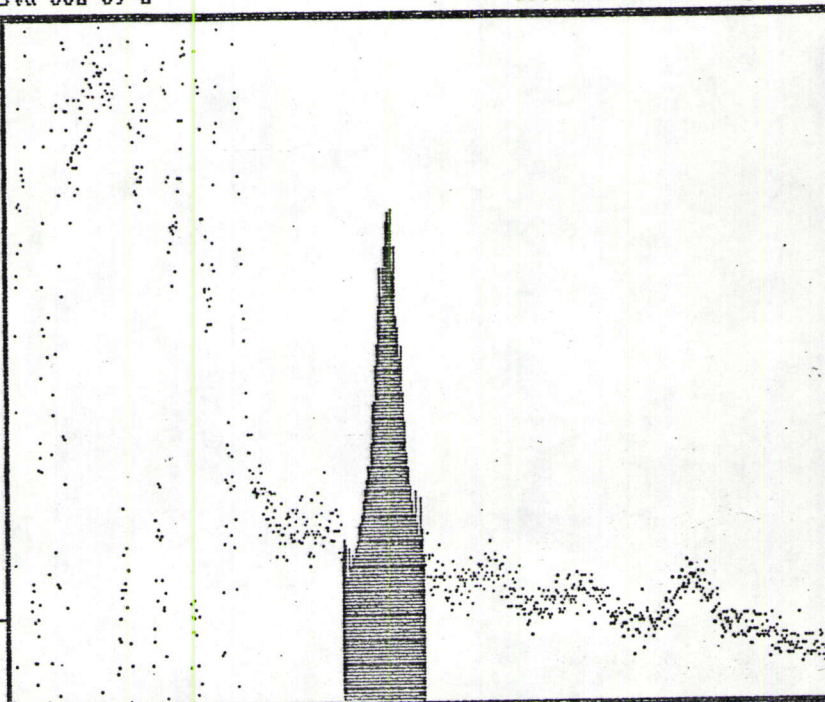
MAR 02 1992

DIVISION OF
OIL GAS & MINING

Nucleus PCA-II

Id: .0047 uCi std 352-39-2

09:08:29 am Feb 14, 1992

Feb 14, 1992
10:10:35 amAcquire: Off
Mode: PHA
Timer: Live
Scale: 512
Group: Q1
Roi No: 1
Roi: On
Gain: 4096
Offset: 0
Ade: Add
Display: 1024
Overlap: Offkev: 673.32
Cts: 114

Preset: 3600

Elapsed: 3600

Real:

3600

ROI Int: 19712 \pm 140ROI Net: 8979 \pm 1740 50 100
Percent Dead Time

Centroid: 620.83 kev

FWHM: 46.18 kev

FWHM: 80.85 kev

F1-Acquire F2-Erase F3-Preset F4-Expand F5-Ident F6-Load F7-Save Esc-ROI

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

24 February 1992

Via FAX

Mr. Sal Venticinqu
Land Status Geologist, Moab District
Grand Resource Area, BLM
P. O. Box M
Moab, Utah 84532

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

Re: Lisbon Mill Tailings Reclamation (T29S, R24E)
Your Ref: 3809 U68-P81-05 (Amendment)(U-068)

Dear Mr. Venticinqu:

As discussed last week, we have requested San Juan County to abandon County Road #147 (Rio Algom access road) and for Rio Algom to assume the responsibility for its future upkeep.

However, because the approval process takes several weeks and in case our request is denied (unlikely, I'm told), we have applied for an encroachment permit (copy attached). We expect to get this permit within the next few days.

We have proposed using two access roads to the east borrow area and plan to use silt from this area for the completion of our tailings reclamation cover as well as for the construction of berms for our No. 2 evaporation cell on the lower tailings. Access to the tailings area will be gained through traversing the PMF runoff channel, which we plan to excavate first. This PMF channel will be excavated approximately 300 feet through rock strata with an invert width of 30 feet, 1:1 sideslopes, and maximum depth of 17 feet.

We plan to use silt from the west borrow area for the construction of the lower tailings dam reduced outslope. If insufficient material is available for this job from this location, the shortfall amount will be hauled from the east borrow area using the pre-existing roads, as highlined in Figure 1 attached.

With the exception of the PMF channel, all access roads will be constructed to a width of 40 feet, for safety reasons. The design restricts us to 30 feet in the channel and we plan to use special precautions when traveling through it. An additional two acres of land will be disturbed with these borrow area access roads.

Attachment 4

Mr. Sal Venticinque
24 February 1992
Page Two

We will provide you with a copy of our encroachment permit as soon as we get it. If you have any further questions, or need additional information, please let us know as soon as possible.

Yours sincerely,

Robert S. Pattison
Manager

RSP:ep
Attachments

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

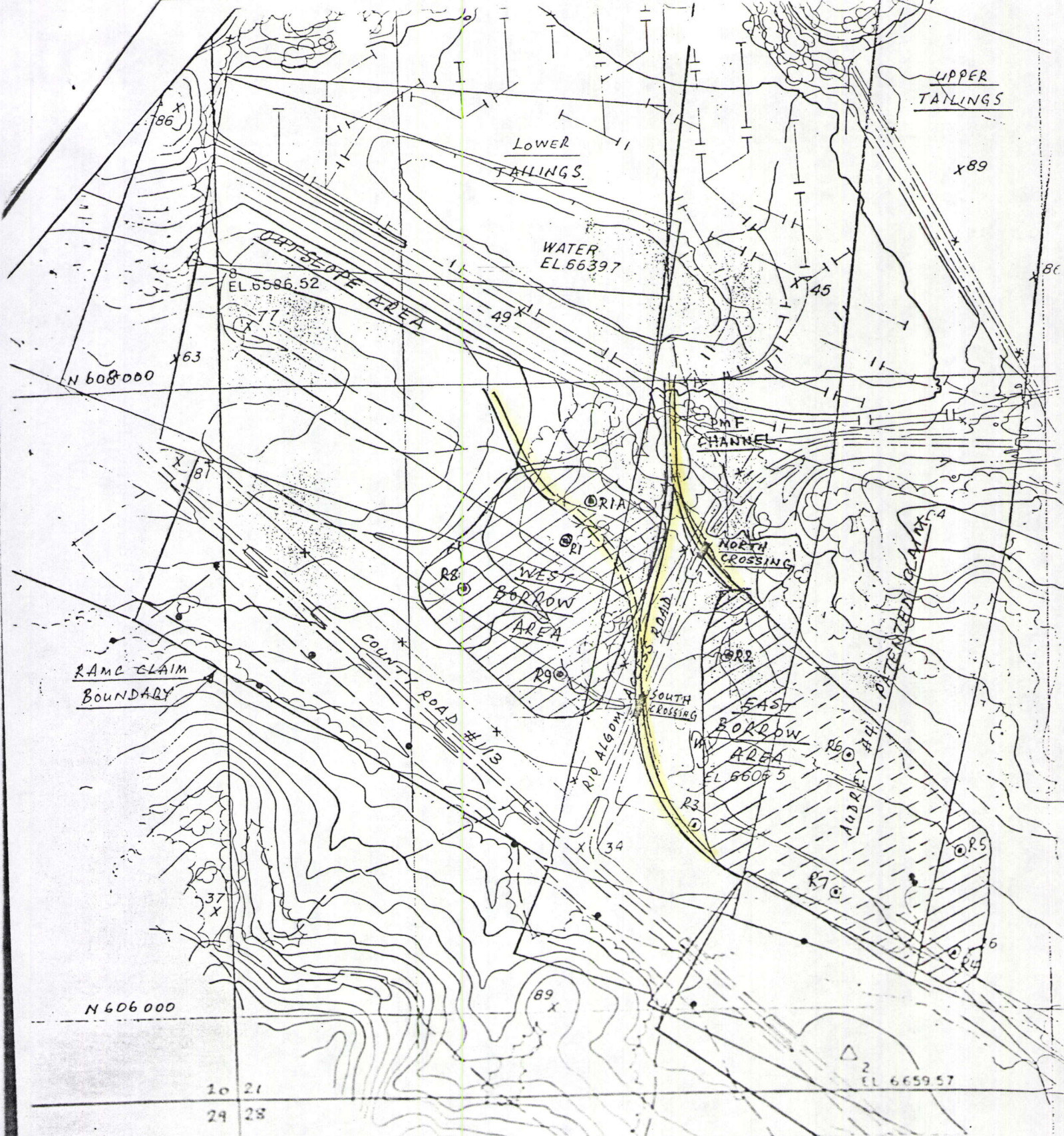


FIGURE 1 : RIO ALGOM MINING CORP.
LISBON RECLAMATION PROJECT
SHOWING PROPOSED BORROW AREAS
AND ACCESS ROADS

24 10 1972

000/85472
24 10 1972

SAN JUAN COUNTY ROAD DEPARTMENT

Application for Right-of-Way Encroachment Permit

Date: February 24, 1992

TO: Road Superintendent
San Juan County Road Department
P.O. Box 188
Monticello, Utah 84535

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MININGApplication is hereby made by: (1) Rio Algom Mining Corp.Address (2) La Sal Route, Moab, Utah 84532Telephone Number: 686-2215 for permission to do thefollowing: (3) To cross County Road #147 with heavy earthmovingequipment for the purpose of retrieving borrow material from the eastside of the road. Appropriate warning signs will be used for the workand a minimum of one foot of dirt will be used to protect the pavement.(4) Location: Two crossings are presently required located approximately500 feet and 1000 feet from the junction with County Road #113 as shownin the attached sketch of the area.City Near La SalCounty San JuanState Utah

FROM:RAMC LISBON OPERATIONS

TO:BLM MOAB

FEB 25, 1992 10:46AM #005 P.01

LA SAL ROUTE
MOAB, UTAH 84532

RECEIVED
COMMUNICATIONS AREA
92 FEB 25 AM 11:09

Telephone: (801) 686-2215
FAX, Dedicated: (801) 686-2337

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: Sal Venticinque FAX #

FROM: Bob Pattison

REGARDING: 2nd page of Encroachment application completed by

Doug Pehrson/San Juan County.

A TOTAL OF 2 PAGES WILL BE TRANSMITTED, INCLUDING THIS
COVER PAGE.

DATE: 2-25-92 OPERATOR: ep

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

-2-

(8) In approving this application and locations of utilities, and effort will be made to approve only locations that will not be effected in the event that San Juan County changes the roadway. But, in situations in which the utility has to be moved, this moving shall be done by the utility company or paid for by the company.

(9) For any and all applications requesting authority to vibroseise, applicants shall:

- a. Provide map showing where vibroseising will take place.
 - b. Agree to repair any damages or replace any property damaged.
 - c. Take full responsibility for proper flagging and traffic control.
 - d. Agree that Vibrosesising done in the area of dirt roads shall be done on the dirt road rather than in the bar ditch to minimize damage.
 - e. Provide a schedule of the planned work and estimated dates of completion.
 - f. Attach written permission form all adjacent fee-title owners.
 - g. The San Juan County Commission has authorized the San Juan County Road Superintendent (or his Assignees) to issue permits.
- (10) San Juan County can only grant permission to the extent that the County has the authority to do so and the permission granted hereunder is limited to the interest of authority actually owned by San Juan County and no warranties of ownership or authority to grant permission is expressed or implied by the granting of this permit.

BY: *L. P. Peterson*TITLE: *Manager*

To be filled in by Road Superintendent.

(1) Permit should be granted *Yes*

Permit should not be granted

(2) Additional requirements which should be imposed *None*

Doug Peterson
ROAD SUPERINTENDENT
Engineer

File Code 3809

STIPULATIONS

EA Log No. UT-068-89-112

Lease or
Serial No. U68-P81-05 (amendment

Project Mine Tailings Impoundment Reclamation

Applicant Rio Algom Corporation

Address Lisbon Mine, La Sal Route, Moab

BLM Office Grand Resource Area

Project T29S, R24E, Sec. 21, NE 1/4
Location Sec. 22, NW 1/4, SLB&M

County Grand, Utah

Phone No. (801) 259-8193

The following stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted by the accompanying decision. The action permitted and its anticipated impacts are fully described in the environmental assessment or categorical exclusion referenced above.

1. All 43 CFR 3809 regulations and all Utah State regulations relating to mining activity shall be observed. You have received copies of these regulations.

2. Significant cultural sites shall be avoided. Should any cultural and/or paleontological resource be discovered during project operations the following requirement shall apply:

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder/operator, shall be immediately reported to the authorized officer. The holder/operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued. An evaluation of the discovery will be made to determine appropriate actions to prevent the loss of significant cultural or scientific values. Any decision as to proper mitigation shall be made by the authorized officer after consulting with the holder.

All field crews and other people involved with the operation will be informed by the holder/operator that they are subject to prosecution if caught vandalizing archaeological and/or paleontological sites or collecting any historic or prehistoric artifacts.

3. Displaced topsoil shall be windrowed for subsequent replacement. If left windrowed for more than one year the windrowed topsoil shall be reseeded and watered to minimize wind and water erosion. Water shall also be lightly sprayed on all disturbed areas to help minimize soil erosion.
4. Erosion control measures shall be used, such as providing drainage dips on all roads which remain open for more than one season. Roads used for only one season and then abandoned shall be ripped and reseeded, with entrances blocked to prevent vehicle traffic.
5. Existing roads and trails shall be used to the maximum extent possible.
6. Dust shall be abated by lightly spraying water on disturbed areas during operations. Through careful work scheduling vehicle emissions, dust and noise shall be minimized.
7. Speed of trucks and other vehicles shall be such as to tend to avoid collision with deer and other wildlife.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

8. All trash, garbage, waste material and scrap will be disposed of in an approved disposal area.
9. Equipment oil will not be drained onto the ground, but will be collected and transported in closed containers to a sanitary landfill, oil recycling center, or other approved disposal point.
10. If County Road 191 is encroached upon and/or rerouted, an encroachment permit must be secured from San Juan County. Please send the Grand Resource Area office a copy of the permit.
11. All disturbed areas shall be reshaped to approximate the natural contour. Windrowed topsoil shall then be evenly spread over the reshaped areas, scarified and reseeded with the following seed mix:

<u>Grasses</u>	<u>Rate Lbs/Acre</u>
Beardless bluebunch	2
Crested wheatgrass (var Hycrest)	2
Indian rice grass	2
Blue grama	1
Four-wing saltbush	3
Mexican cliffrose	1
Western wheatgrass	3
Lear milkvitch	2

16

If the seed is applied by broadcasting, the above rate will be doubled. the seeds will be covered with soil by using a suitable drag. Revegetation will be done in the fall of the year.

Displaced vegetation shall then be spread over reseeded areas to help retain water, prevent soil erosion and to give the areas a more natural appearance. Please call the authorized officer at least 24 hours prior to revegetation work.

12. Water must be legally obtained in accordance with State water laws.
13. On termination of the mining operations, the authorized officer must be notified within 15 days and final reclamation procedures commenced within 30 days of such notification.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

UT-060-1790-3

July 1986

File Code 3809

ENVIRONMENTAL ASSESSMENT COVER SHEET

EA Log No. UT-068-89-112

Lease or Amendment
Serial No. U68-P81-05

Project Mine Tailings Impoundment Reclamation

Applicant Rio Algom Corporation

Project T29S, R24E, Sec. 21, NE 1/4
Location Sec. 22, NW 1/4, SLB&M

Address Lisbon Mine, La Sal Route, Moab

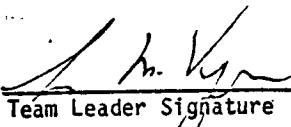
County Grand, Utah

BLM Office Grand Resource Area

Phone No. (801) 259-8193

LIST OF PREPARERS

<u>Name</u>	<u>Title</u>	<u>Resources Assigned</u>
<u>Sal Venticinque</u>	<u>Geologist</u>	<u>Land Status</u>
<u>Julie Howard</u>	<u>Archaeologist</u>	<u>Cultural Resources</u>
<u>Joe Cresto</u>	<u>Wildlife Biologist</u>	<u>Wildlife, T & E</u>
<u>Gregg Dawson</u>	<u>Range Conservationist</u>	<u>Vegetation, Soils</u>
<u>Dave Minor</u>	<u>Recreation Specialist</u>	<u>Recreation, Visual Resources</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>


Team Leader Signature

Geologist
Title

October 12, 1989
Date

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

UT-060-1790-1
July 1986

File Code 3809

RECORD OF DECISION AND
FINDING OF NO SIGNIFICANT IMPACT

Lease or Amendment
Serial No. U68-P81-05

EA Log No. UT-068-89-112

Project Mine Tailing Impoundment Reclamation

Applicant Rio Algom Corporation

Address Lisbon Mine, La Sal Route, Moab

BLM Office Grand Resource Area

Project T29S, R24E, Sec. 21, NE 1/4;
Location Sec. 22, NW 1/4, SLB&M

County Grand, Utah

Phone No. (801) 259-8193

RECORD OF DECISION

Decision: The following is the decision of the Bureau.

It is my decision to allow this project to proceed, subject to all of the following stipulations.

Rationale: The project meets 43 CFR 3809 requirements in that it will not cause undue or unnecessary degradation of Federal land. Reclamation of the radioactive tailings impoundment will help protect public health and the environment. It is also in conformance with the Grand Resource Area Resource Management Plan (1985).

Environmental Considerations: I have considered the environmental consequences of this decision as documented in the accompanying environmental assessment or categorical exclusion, referenced above. All environmental considerations have been adequately addressed in the accompanying document.

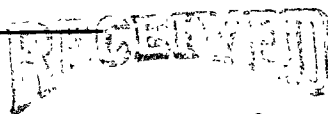
STIPULATIONS

This decision incorporates by reference the attached stipulations. The stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted by this decision.

FINDING OF NO SIGNIFICANT IMPACT
(Does not apply to categorical exclusions.)

Based on the analysis of potential environmental impacts contained in the accompanying environmental assessment, referenced above, I have determined that impacts are not expected to be significant. Therefore an environmental impact statement is not required.

B. O. D. Plam
Area Manager



10/12/89
Date

UT-060-1790-2
July 1986

MAR 02 1992
DIVISION OF
OIL GAS & MINING

Need for the Proposed Action: Applicant needs about 300,000 cubic yards of clayey fill material from Borrow Areas #2 and #4 to help satisfy Nuclear Regulatory Commission (NRC) requirements regarding the reclamation of applicant's upper tailings impoundment. Attached Plate 1 shows soil types, soil thicknesses, etc.

The following proposal is in accordance with 43 CFR 3809 regulations and the Grand Resource Area Resource Management Plan (1985).

PROPOSED ACTION AND ALTERNATIVES

Proposed Action: All mining activity shall take place in the NE 1/4 of Section 21 and the NW 1/4 of Section 22, T29S, R24E (SLM). Attached Figure 1 shows the location and approximate boundaries of the borrow areas. Approximately 85,000 cu. yds. will come from Borrow Area #2 and 215,000 cu. yds. from Borrow Area #4. The project area is covered by Rio Algom lode mining claims; the U.S. Bureau of Land Management (BLM) administers the land. A maximum of about eight acres of Borrow Area #2 (shown in green on attached Figure 2 and about 22 acres of Borrow Area #4 (shown in light red) are to be stripped down to a maximum depth of 11' and 12' respectively. The borrow materials have been sampled and tested by the applicant for soil radium content; the sampling sites are located in that part of the NE 1/4 of Section 21 south of San Juan County Road 191 (see attached Figure 3). The testing results indicate (see attached Exhibit 1) that the material is suitable for radon attenuation cover for the tailings; moreover, these results are considered representative for both Borrow Areas 2 and 4.

Significant cultural sites have been identified (see attached Figure 4) and conspicuously flagged; they shall be avoided. Access to Borrow Area #2 shall be by an existing road (shown in blue-green on attached Figure 2). Borrow Area #4 shall be accessed by a pre-1972 County road/clearing (shown in red). Some minor grading and the removal of as little vegetation (especially trees) as possible shall be required to again open this access. Encroachment upon and/or rerouting of County Road 191 might be necessary in Borrow Area #4; should this occur applicant intends to secure the prior approval of San Juan County.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

File Code: 3809
EA Log #: UT-068-89-112

All vegetation and the top 6 to 12 inches of topsoil will be removed. This material will be pushed by bulldozer into windrows at the edges of the borrow areas for subsequent replacement. Erosion control measures shall be used, such as providing drainage dips on all roads which remain open for more than one season. Roads used for only one season and then abandoned shall be ripped and reseeded, with entrances blocked to prevent vehicle traffic. Reclamation of the borrow areas shall consist of reshaping to approximate the original contour, with no new ponds being allowed to form. The windrowed topsoil shall then be spread evenly over the recontoured areas. Seed shall be applied by seed drill, or broadcast and harrowed on contour, with water being applied in order to reduce wind erosion. Removed vegetation shall then be scattered over the areas in order to give a natural appearance and to help prevent soil erosion. Seed mix shall conform to BLM current requirements. If reseeded is unsuccessful, BLM will evaluate existing conditions to determine if the reseeded needs to be repeated or is not warranted, due to existing conditions.

No Action Alternative: The reclamation work needs to be completed as required by regulation. Other locations could be chosen for the excavation of material, but the impacts would be the same.

ENVIRONMENTAL IMPACTS

Impacts of the Proposed Action

Cultural: No impacts are anticipated. A cultural resources inventory made in July, 1989 by the firm of Abajo Archaeology for Rio Algom Corporation documented 13 archaeological sites. Of these, eight sites are significant in terms of eligibility for inclusion to the National Register of Historic Places (see attached Figure 4, sites highlighted in yellow). In the NE 1/4 of Section 21 significant sites border on Borrow Areas 2 and 4. Each of these sites have been conspicuously delineated with flagging for avoidance. The applicant has stated in the Proposed Action that the significant sites shall be avoided.

Soils and Vegetation: A detailed report of affected soils was produced for Rio Algom as part of the proposed project. See this report for more detailed information. The general ecological sites are upland loam and upland shallow loam.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

Existing-vegetation would be lost and topsoil removed from the sites until reclamation and reseeding was completed and revegetation established. Plant species affected would be crested wheat, sagebrush, juniper, pinyon pine and rabbitbrush. Through replacement of the topsoil and a successful reseeding there would be no long term loss of vegetation; soil erosion would also be minimized.

Wildlife: There are deer and elk present near the proposed project area. This proposal will remove vegetation which is used as forage from approximately 30 acres.

The impacts to wildlife should be minimal. Deer and elk will be temporarily displaced during both the borrow removal operations and the reclamation work. No loss of deer or elk resulting from loss of forage should result.

Some loss of deer (from one to six) could occur as a result of being hit by material haul trucks and other vehicle traffic.

Small mammals such as rabbits and rodents will be displaced from the disturbed areas until vegetation becomes reestablished.

Threatened and Endangered Species:

No threatened or endangered species will be affected by this project.

Dust, Vehicle Emissions and Noise: Each of these impacts is closely interrelated with each of the others. Project operations will involve use of equipment and vehicles which will cause ground disturbance. Considerable dust, noise and vehicle fuel emissions will result.

Impacts of Alternatives: No impacts would occur because no ground disturbance would be created.

MITIGATION MEASURES AND RESIDUAL IMPACTS

Cultural: Should any cultural and/or paleontological resource be discovered during project operations the following requirement should apply:

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder/operator, shall be immediately reported to the authorized officer. The holder/operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued. An evaluation of the discovery will be made to determine appropriate actions to prevent the loss of significant cultural or scientific values. Any decision as to proper mitigation shall be made by the authorized officer after consulting with the holder.

All field crews and other people involved with the operation will be informed by the holder/operator that they are subject to prosecution if caught vandalizing archaeological and/or paleontological sites or collecting any historic or prehistoric artifacts.

Soils and Vegetation: In the Proposed Action applicant states that displaced vegetation and topsoil shall be windrowed for subsequent replacement. If left windrowed for more than one year the windrowed topsoil should be reseeded and watered to minimize wind and water erosion. Water should also be lightly sprayed on all disturbed areas to help minimize soil erosion. When reseeding is done watering will help promote plant growth. Displaced vegetation should then be spread over reseeded areas to help retain water, prevent soil erosion and to give the areas a more natural appearance.

Wildlife: Reduction of the speed of trucks and other vehicles would tend to avoid collision with deer and other wildlife.

Dust, Vehicle Emissions and Noise: Each of these impact only during workshift hours and will no longer impact when reclamation of this project is completed. Dust can be abated by lightly spraying water on disturbed areas during operations. Through careful work scheduling vehicle emissions, dust and noise should be minimized.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

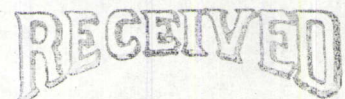
STIPULATIONSEA Log No. UT-068-89-112Lease or Amendment
Serial No. U68-P81-05Project Mine Tailings Impoundment ReclamationApplicant Rio Algom CorporationProject T29S, R24E, Sec. 21, NE 1/4Location Sec. 22, NW 1/4, SLB&MAddress Lisbon Mine, La Sal route, MoabCounty Grand, UtahBLM Office Grand Resource AreaPhone No. (801) 259-8193

The following stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted by the accompanying decision. The action permitted and its anticipated impacts are fully described in the environmental assessment or categorical exclusion referenced above.

Each of the mitigation/reclamation measures listed in the PROPOSED ACTION and MITIGATION MEASURES AND RESIDUAL IMPACTS sections are hereby made stipulations for this project. In addition, the following stipulations apply:

1. All 43 CFR 3809 regulations and all Utah State regulations relating to mining activity shall be observed. You have received copies of these regulations.
2. Existing roads and trails shall be used to the maximum extent possible.
3. All trash, garbage, waste material and scrap will be disposed of in an approved disposal area.
4. Equipment oil will not be drained onto the ground, but will be collected and transported in closed containers to a sanitary landfill, oil recycling center, or other approved disposal point.
5. If County Road 191 is encroached upon and/or re-routed, an encroachment permit must be secured from San Juan County. Please send the Grand Resource Area office a copy of the permit.
6. All disturbed areas shall be reshaped to approximate the natural contour. Windrowed topsoil shall then be evenly spread over the reshaped areas, scarified and reseeded with the following seed mix:

<u>Grasses</u>	<u>Rate</u> <u>Lbs/Acre</u>
Beardless bluebunch	2
Crested wheatgrass (var Hycrest)	2
Indian rice grass	2
Blue grama	1
Four-wing saltbush	3
Mexican cliffrose	1
Western wheatgrass	3
Lear milkvitch	2



MAR 02 1992

DIVISION OF
OIL GAS & MINING

If the seed is applied by broadcasting, the above rate will be doubled. The seeds will be covered with soil by using a suitable drag. Revegetation will be done in the fall of the year. Please call the authorized officer at least 24 hours prior to revegetation work.

7. Water must be legally obtained in accordance with State water laws.
8. On termination of the mining operations, the authorized officer must be notified within 15 days and final reclamation procedures commenced within 30 days of such notification.

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

File Code: 3809

EA Log #: UT-068-89-112

ATTACHMENTS

1. CHECKLIST FOR ENVIRONMENTAL ASSESSMENT
2. PLATE 1: Shows borrow area soil types, soil thicknesses, etc.
3. FIGURE 1: Topographic map showing the location of the project area and also the approximate boundaries of Borrow Areas 1 and 2.
4. FIGURE 2: Smaller scale topographic map showing borrow area boundaries, Rio Algom Corporation lode mining claims, access roads, etc.
5. FIGURE 3: Topographic map showing location of radium sampling sites.
6. EXHIBIT 1: Letter to Mr. Brad Palmer, Grand Resource Area Manager, BLM (Utah) from Mr. R. S. Pattison, Manager, Rio Algom Corporation Lisbon Mine stating the results of sampling and testing for soil radium content in the borrow areas.
7. FIGURE 4: Topographic map showing the location of significant archaeological sites.

File Code 3809CHECKLIST FOR ENVIRONMENTAL ASSESSMENTEA Log No. UT-068-89-112Lease or Amendment
Serial No. U68-P81-05Project Mine Tailings Impoundment ReclamationApplicant Rio Algom CorporationProject T29S, R24E, Sec. 21, NE 1/4;
Location Sec. 22, NW 1/4, SLB&MAddress Lisbon Mine, La Sal Route, MoabCounty Grand, UtahBLM Office Grand Resource AreaPhone No. (801) 259-8193

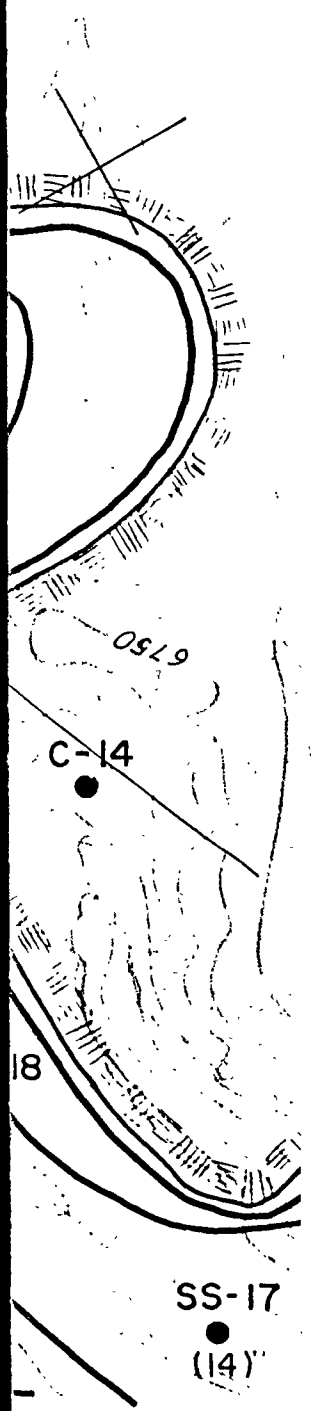
The following mandatory items have been considered for this environmental assessment. Items that may be impacted have been discussed within the environmental assessment; the remainder will not be affected and are not discussed.

Proposed Action: Removal of clay and silt/clay borrow material

	May Be Impacted	Will Not Be Affected		Specialist Signature/Date
1. a.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Threatened or Endangered Plants	<u>[Signature]</u> 9-29-89
b.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Threatened or Endangered Animals	<u>[Signature]</u> 9-28-89
2.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Floodplains and Wetlands	<u>[Signature]</u> 9-29-89
3.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wilderness Values	<u>David C. Minor</u> 9-29-89
4.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Areas of Critical Environmental Concern	<u>David C. Minor</u> 9-29-89
5.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Visual Resource Management	<u>David C. Minor</u> 9-29-89
6.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Resources	<u>[Signature]</u> 9-29-89
7.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Air Quality	<u>[Signature]</u> 9-29-89
8.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cultural or Historic Resources	<u>Julie Hawley</u> 9-29-89
9.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Paleontological Resources	<u>Julie Hawley</u> 9-29-89
10.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Prime or Unique Farmlands	<u>[Signature]</u> 9-29-89
11.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wild and Scenic Rivers	<u>David C. Minor</u> 9-29-89

The above project has been analyzed for conformance with BLM plans and consistency with local government plans. Significant discrepancies are discussed in the body of the environmental assessment.

BLM Plan and Date: Grand Resource Area Resource Management Plan, 1985Local Government Plans and Dates: Grand County Master Plan for Development, 1979; University of Utah Bureau of Community Development



EarthFax

EarthFax Engineering Inc.
Engineers/Scientists

PLATE I

BORROW AREA SOILS

RIO ALGOM MINING CORP.

DRAWN BY: VSB

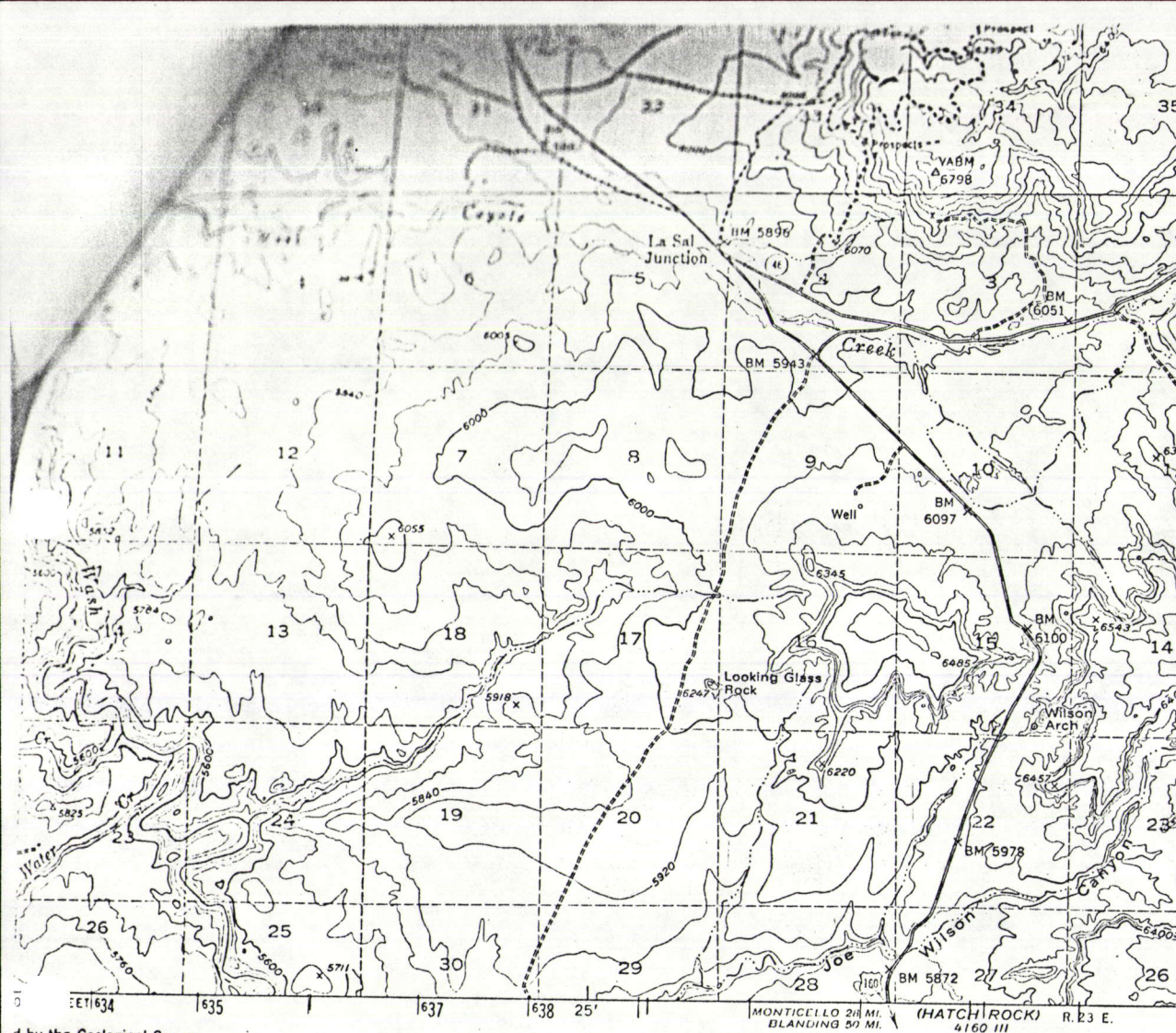
APPROVED BY:

CHECKED BY: CAB

DATE: 6/5/89

E.A.#: UT-068-89-112

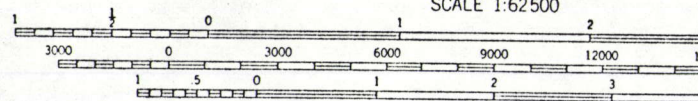
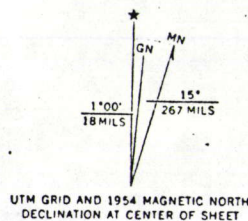
JH
BIM



d by the Geological Survey

by multiplex methods
advance field check 1954
American Datum
ordinate system, south zone
mercator grid ticks,

American Datum 1983 move
and 59 meters east
thin the boundaries
shown on this map



CONTOUR INTERVAL 80 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RE
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE

FIGURE 1

E.A. #: UT-068-89-112

AREA COLORED GREEN: BORROW
AREA COLORED LIGHT RED: BORROW

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

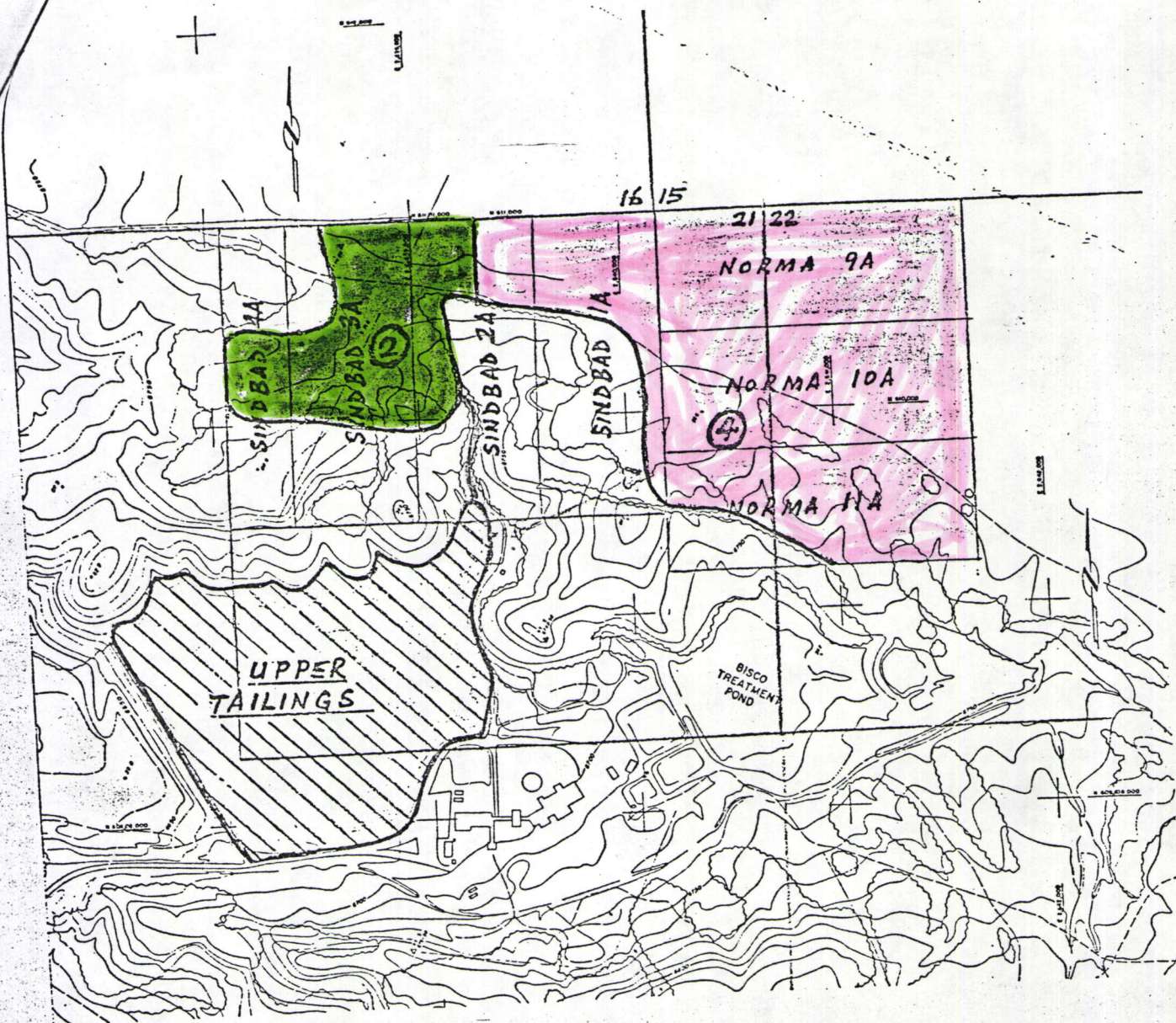


FIGURE 2 - BORROW AREAS FOR RECLAMATION OF UPPER TAILINGS

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

E.A.#: UT-068-89-112

AREA COLORED GREEN: BORROW AREA #2
AREA COLORED LIGHT RED: BORROW AREA #4

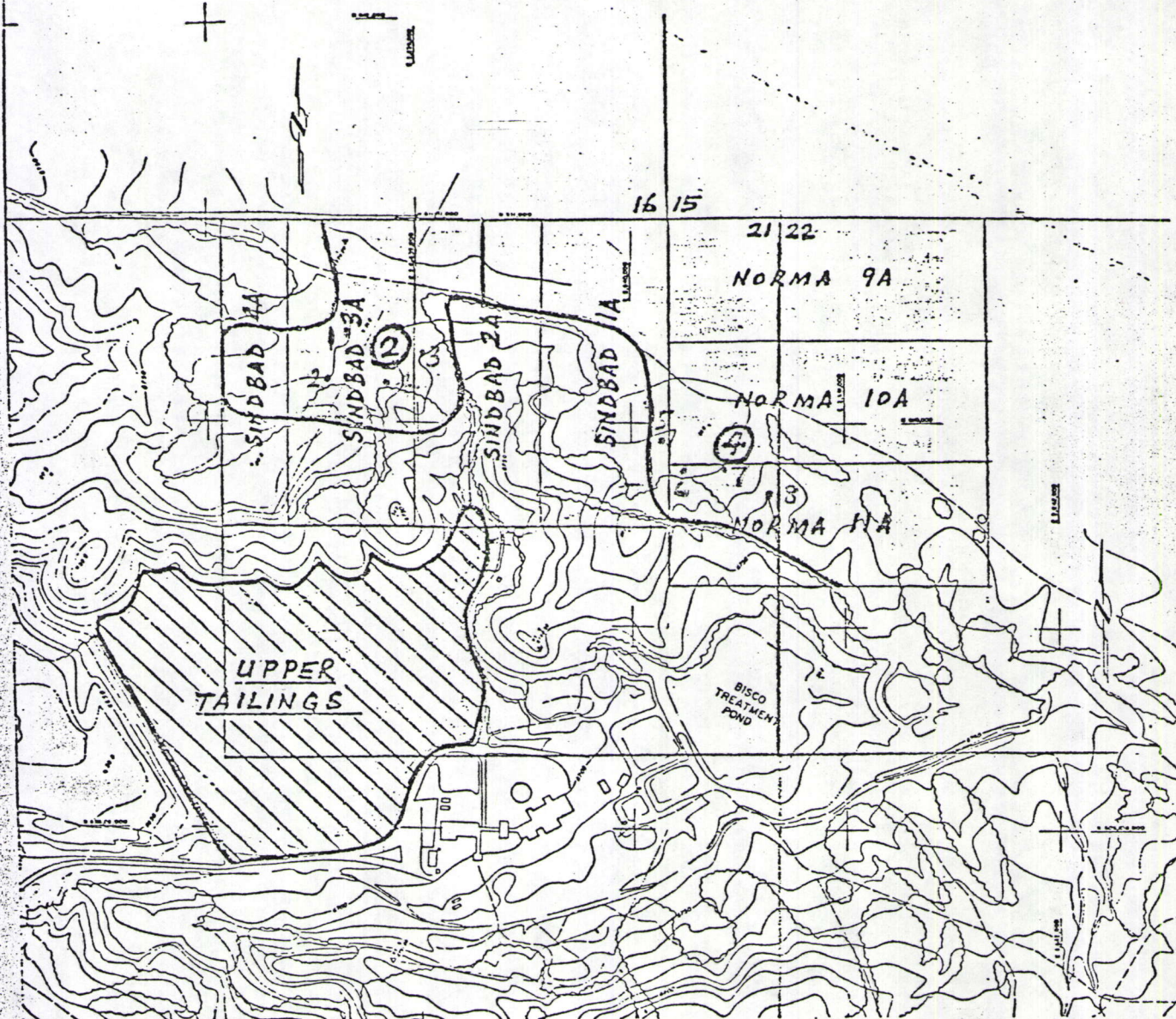


FIGURE 3 - BORROW AREAS FOR RECLAMATION OF UPPER TAILINGS
SHOWING LOCATIONS OF RADIUM SAMPLING SITES

E.A.#: UT-068-89-112

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING

RIO ALGOM MINING CORP.

La Sal Route
MOAB, UTAH 84532

Phone: (801) 686-2215

5 October 1989

Mr. Brad Palmer, Area Manager
Moab District Grand Resource Area
Bureau of Land Management
P.O. Box M, Moab, Utah 84532

RECEIVED

MAR 02 1992

DIVISION OF
OIL, GAS & MINING

Re: Reclamation of Upper Tailings Impoundment

Dear Mr. Palmer:

Attached are the results of our borrow area sampling for soil radium content. For your information a map is attached which shows the locations from which the samples were taken and the following is a summary of the results:

<u>Location</u>	<u>Radium Content (pCi/gm)</u>
1	0.8 +/- 0.4, 0.4 +/- 0.3
2	0.5 +/- 0.4
3	1.3 +/- 0.6
4	1.6 +/- 0.6
5	1.5 +/- 0.7
6	0.8 +/- 0.4
7	1.7 +/- 0.6
8	2.6 +/- 1.0

These results indicate that the borrow materials are suitable for radon attenuation cover for the tailings. The samples were taken from one foot depths and radium content is expected to decline with increasing depth.

In borrow area #2 we estimate that we will need to remove approximately two feet of soil before we reach the clay material needed for the initial radon cover and in borrow area #4 we expect to remove about one foot to reach the clay/silt material needed for final cover. To answer Mr. Venticinque's recent question of how deep we will need to excavate each borrow area, we estimate about 11 feet on borrow area #2 and 12 feet on borrow area #4. These depths are those indicated on Plate 1 of the report left with you on 18 September 1989: "Reclamation Cover Design and Analysis of Tailings at the Lisbon Mill".

If you have any questions, please call me at (801) 686-2216.

Yours sincerely



R. S. Pattison
Manager

RSP/tw

Cc: M. D. Freeman
B. K. Reaveau

EXHIBIT 1

E.A.#: UT-068-89-112

RECEIVED

MAR 02 1992

DIVISION OF
OIL GAS & MINING